



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/049,287   | 02/11/2002  | Teruko Fujii         | 2611-0173P          | 9532             |
| 2292   | 7590        | 04/14/2006           | EXAMINER            |                  |
| BIRCH STEWART KOLASCH & BIRCH<br>PO BOX 747<br>FALLS CHURCH, VA 22040-0747 |             |                      | CHANG, EDITH M      |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 2611                |                  |

DATE MAILED: 04/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

84

|                              |                                      |                                     |  |
|------------------------------|--------------------------------------|-------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/049,287 | <b>Applicant(s)</b><br>FUJII ET AL. |  |
|                              | <b>Examiner</b><br>Edith M. Chang    | <b>Art Unit</b><br>2611             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7,9 and 11-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6,7 and 14-17 is/are allowed.
- 6) ☒ Claim(s) 1-5,9 and 11-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments/Remarks*

1. Applicant's arguments with respect to claims 1-5 and 9-13 have been considered but are moot in view of the new ground(s) of rejection.

### *Drawings*

2. The drawings were received on January 27, 2006. These drawings are accepted.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 9 and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsui et al. (US 4,672,543).

Regarding **claims 1, 9 & 11**, Matsui et al. discloses a communication device (FIG.2) employed in a communication system (FIG.1), the communication system comprising a plurality of communication devices (I/Fs & A-N FIG.1) being connected to a transmission line (L FIG.1) and it method (FIG.13) to adjust transmission timing of data to prevent a collision between signals (column 1, lines 45-60).

Art Unit: 2611

In FIG.2, each of said communication devices (a communication device) includes a transmission control unit (10 & 12) and In FIG.13, the data of one of Terminals (B) includes first data having high priority (ACK) and second data (DATA), the second data (DATA) is transmitted at a random time (column 11, lines 53-59) after elapse of a first time ( $t_2$ ) and before elapse of a second time ( $t_3$ ), wherein the back-off processing has individually detected elimination of a carrier signal (is gone) in each terminal (column 1, lines 58-60). The first data (ACK) is transmitted to the transmission line before elapse of the first time ( $t_2$ ).

Regarding to **claims 2 & 12**, Matsui et al. discloses the system has the ACK as the high priority data to confirm a reception (column 8, lines 61-63).

Regarding to **claims 3 & 13**, Matsui et al. discloses the system has the NRDY as the NACK high priority data to represent a non-reception confirmation (column 8, lines 66-68).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsui et al. in view of Lee (US 5,836,785).

Regarding **claim 4**, Matusi et al. discloses all subject matter (refer the rationale of the rejection of claim 1), except explicitly specifying the plurality of communication devices forming a star-type connection.

Lee, in FIG.2B teaches a plurality of communication devices of an Ethernet system forming a star-type connection wherein the device (ISA hub card) 251 is the master device and the devices 272, 272 and 274 are slave devices (column 7, lines 13-18) to generate ACK to avoid collision (FIG.3B). As Matusi et al.'s LAN system connecting a plurality of devices transmitting data and ACK to avoid collision, it would have been obvious to one of ordinary skill in the art to have the plurality of devices in the Matusi et al.'s LAN system divided into one master communication device and other slave communication devices taught by Lee in the center of a star-wired configuration which is popular in modern offices (column 1, lines 30-40 '785) to provide the flexibility in the Unshielded Twisted Pair cables environment of the modern offices.

Regarding **claim 5**, Matusi et al. discloses all subject matter (refer the rationale of the rejection of claim 1), except explicitly specifying the plurality of communication devices forming a star-type connection.

Lee, in FIG.2B teaches a plurality of communication devices of an Ethernet system forming a star-type connection wherein the device (ISA hub card) 251 is the master communication device and the devices 272, 272 and 274 are slave communication devices (column 7, lines 13-18) to generate ACK to avoid collision (FIG.3B), wherein the master communication device performs the centralized arbitration (column 1, lines 59-62 '785) and as the master communication device

Art Unit: 2611

inherently relays data. As Matusi et al.'s LAN system connecting a plurality of devices transmitting data and ACK to avoid collision, it would have been obvious to one of ordinary skill in the art to have the plurality of devices in the Matusi et al.'s LAN system divided into one master communication device and other slave communication devices taught by Lee in the center of a star-wired configuration which is popular in modern offices (column 1, lines 30-40 '785) to provide the flexibility in the Unshielded Twisted Pair cables environment of the modern offices.

***Allowable Subject Matter***

7. Claims 6-7 and 14-17 are allowed.
8. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to teach or suggest, alone or in a combination, among other things, at least a communication system comprising a plurality of communication devices with a master communication device and other slave communication devices for a star-type connection and its methods as a whole, the combination of elements and features, which includes the master device and transmitting data at a random time randomly representing a time existing after a first time elapses until a second time elapses from a time when the carrier signal on the transmission line is gone, transmitting ACK data when receiving multi-address data relayed, and transmitting the multi-address data relayed as recited in the claims.

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edith M. Chang whose telephone number is 571-272-3041. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammed H. Ghayour can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2611

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Edith Chang  
April 4, 2006

  
**KHAI TRAN**  
**PRIMARY EXAMINER**